AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at **page 71, line 3**, and insert the ~~yr 11/17/2010~~ following rewritten paragraph:

Fig. 9 is a structured flowchart showing main routine processing of the gait generating device 100. The following is a detailed explanation. First, in S010, various initializing operations, including the initialization of time t to zero, are performed. This processing is carried out at startup or the like of the gait generating device 100. Then, the gait generating device 100 proceeds to S014 via S012 and waits for a timer interrupt for each control cycle (the computation processing cycle of the flowchart of Fig. 9). The control cycle is denoted by Δt. Thereafter, the processing from S014 to S032 ~~S32~~ is repeated for each control cycle Δt.

Please replace the paragraph beginning at **page 110, line 27**, and insert the following rewritten paragraph:

The corrected desired foot position/posture (trajectory) with deformation compensation are sent from the composite-compliance operation determiner 104 to the robot geometric model 102. The corrected desired foot position/posture with deformation compensation means the desired foot position/posture of each foot 22 that have been corrected such that an actual floor reaction force detected by the six-axis force sensor 50 approximates a desired floor reaction force, considering the deformation of the compliance mechanism 72 of each leg 2 (deformation caused by a floor reaction force acting on each leg 2). Upon receipt of the desired body

position/posture (trajectory) and the corrected desired foot position/posture (trajectory) with deformation compensation, the robot geometric model 102 calculates joint displacement commands (values) for twelve joints of the legs 2 and 2 that satisfy them and sends the calculated commands (values) to the displacement controller 108. The displacement controller 108 uses the joint displacement commands (values) calculated by the robot geometric model 102 as desired values to carry out follow-up control of the displacement of the twelve joints of the robot 1. The robot geometric model 102 also calculates displacement ~~specification~~ commands (values) of arm joints that satisfy desired arm postures and sends the calculation results to the displacement controller 108. The displacement controller 108 uses the joint displacement commands (values) calculated by the robot geometric model 102 as desired values to carry out follow-up control of the displacement of the twelve joints of the arms of the robot 1.

Please replace the paragraph beginning at **page 116, line 10**, and insert the following rewritten paragraph:

Zsup: Vertical position of supporting leg foot mass point; Zswg: Vertical position of free leg foot mass point; Zb: Vertical position of body mass point; Xsup: Horizontal position of supporting leg foot mass point; Xswg: Horizontal position of free leg foot mass point; Xb: Horizontal position of body mass point; θby: Body posture angle about Y-axis relative to vertical direction; mb: Mass of body mass point; msup: Mass of supporting leg foot mass point; mswg: Mass of free leg foot mass point; J: Inertial moment of flywheel; Fx: Horizontal component of floor reaction force; Fz: Vertical component of floor reaction force; and My: Floor reaction force moment about desired ZMP (specifically, a component of floor reaction force moment about the